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ABSTRACT

The purpose of this study was to compare differences in alcohol use and associated problems between two Hispanic youth groups. The subjects, from two different southwest sites, were self-identified Hispanics. Seventh and 12th graders from a northern New Mexico (NNM) (N=64) school and from a school on the U.S.-Mexico border (USM) (N=88) were selected. Central tendencies and Chi-Square statistics were used to analyze the data collected. The Adolescent Drinking Index (ADI) and the Personal Problems Checklist-Adolescent (PPCA) were instruments used to collect data. The study found significant differences between 7th and 12th graders in alcohol use and personal problems at both sites as well as between NNM 7th graders and USM 7th graders. There were not as many differences between NNM and USM for male and female students. The differences found, however, appear important. When looking at levels of alcohol use, both NNM (7th=65%, 12th=90%) and USM (7th=37%, 12th=88%) students showed a significant positive association. (Author)

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Problems From Alcohol Use in Two Hispanic Youth Populations

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Abstract

The purpose of this study was to compare differences in alcohol use and associated problems between two Hispanic youth groups. The subjects, from two different southwest sites, were self-identified Hispanics. Seventh and 12th graders from a northern New Mexico (NNM) (N=64) school and from a school on the U.S.-Mexico border (USM) (N=88) were selected. Central tendencies and Chi-Square statistics were used to analyze the data collected. The Adolescent Drinking Index (ADI) and the Personal Problems Checklist-Adolescent (PPCA) were the instruments used to collect data. The study found significant differences between 7th and 12th graders in alcohol use and personal problems at both sites as well as between NNM 7th graders and USM 7th graders. There were not as many differences between NNM and USM and male and female students. The differences found, however, appear important. When looking at levels of alcohol use, both NNM (7th=65%, 12th=90%) and USM (7th=37%, 12th=88%) students showed a significant positive association.

Problems From Alcohol Use In Two Hispanic Youth Populations

In 1988, 92 percent of high school seniors had tried alcohol with nearly two-thirds reporting they were current drinkers and more than one-third reporting heavy drinking.[1] Although there appears to be a downward trend in alcohol use among high schoolers, consumption is still high. About 8 million American junior and senior high school students are weekly users of alcohol, including 454,000 "binge" drinkers who imbibe an average of 15 drinks each week.[2]

Problem levels appear to be higher among males than females with the incidence of problems decreasing with advancing age.[3] Young males report more frequent heavy drinking and alcohol related problems than other groups. The definition of heavy drinking is consumption of 5 or more drinks at a time at least once a week.[4] This definition is in line with Knupfer's[5] contention that average or total alcohol intake are of little importance as predictors of alcohol use problems and that the major predictive factor is the frequency of intoxication. Of the more than one-third of high school seniors who indulged in occasional heavy drinking, having 4 or 5 drinks nearly every day was not perceived as a great risk.[1]

Alcohol research has only recently began to look at racial and ethnic minorities.[6] Many times that research has focused on what

is known as the 4 major racial and ethnic minorities ---- Blacks, Hispanics, Asian-Americans, and American Indians and Alaskan Natives. Of particular interest to this study are Hispanics, especially since so many inaccurate generalizations exist. Many studies about Hispanics overlook the great culture diversities that exist among the various Hispanic groups.

Not only is it erroneous to generalize alcohol related problems to all Hispanic groups, but it may even be inaccurate to generalize within one group. Differences in drinking patterns among U.S. Hispanics, Mexicans in Mexico and Spaniards in Spain have already been established.[7] In addition, differences among the U.S. Hispanic groups (Cubans, Puerto Ricans, Central Americans, and Mexican Americans) and their alcohol drinking patterns have also been recognized.[7,8,9,10] Although studies into alcohol drinking patterns in Hispanic populations have attracted interest, alcohol research among Hispanic youth has been very small. This author knows of no research examining alcohol related differences among what is recognized as a Hispanic youth subgroup. This study looked at two different Mexican American youth subgroups and tested the following three null hypothesis: (1) There is no measurable difference between a U.S.-Mexico border youth group and a northern New Mexico youth group in the alcohol use problems encountered; (2) There is no measurable difference between male and female students; and (3) High school seniors and 7th graders experience the same types of alcohol related problems.

Methods

The Sample

The study was conducted in April and May of 1991. The purpose was to secure alcohol use information from self-identifying Hispanic youths. The sites for this comparative analysis were a junior and senior high school on the U.S.-Mexico (USM) border and another junior and senior school in northern New Mexico (NNM). The population close to the border has first and second generation, and recently immigrated students, while the northern New Mexico student population is in a community that traces its ancestry to the days before the Pilgrims landed on Plymouth Rock. Forty-six 7th and 42 12th grade USM students selected by homeroom and 43 7th and 21 12th grade NNM students selected by homeroom were the subjects studied. Table I presents demographical data from the sample by grade, by region and by gender.

Table 1 goes about here.

The Instruments

The students completed the Adolescent Drinking Index[11] and Personal Problems Checklist - Adolescent[12] survey instruments. The Adolescent Drinking Index (ADI) is a 24-item rating scale which differentiates between alcohol use which is considered normal in adolescent development and that which is not normal by focusing on problems that arise from alcohol use, not on the amount or frequency of consumption. Internal consistency coefficients across

adolescent samples are uniformly high, exceeding .90. The cutoff score has an 82% accuracy rate, and the ADI correlates .60-.63 with the Michigan Alcoholism Screening Test (MAST).

The Personal Problems Checklist - Adolescent (PPCA) is designed for adolescents in the 13-17 age range. The checklist consists of 240 items which survey common problems cited by adolescents in 13 areas: social, appearance, job, family, home, school, money, religion, emotions, dating, health, attitude, and crises.

The Procedure

Data were collected during homeroom from 7th and 12th graders who identified themselves as Hispanics. Since the NNM school district was small, the data collected included all 7th and 12th grade students present on the day of the survey. The 7th and 12th grade students from the much larger USM school district were randomly selected by their administrator. Students were assigned a code number for confidentially purposes.

Central tendencies and Chi-Square statistics were used to establish significance in comparisons. Only significant Chi-Squares ($p<.05$) will be reported which resulted in eliminating 14 items in the ADI and 7 areas from the PPCA.

Findings

Based on the results of this survey, obvious differences were found between 7th graders at both sites and between 7th and 12th

grade students at each study site in alcohol use with fewer differences between females and males and between NNM and USM 12th grade students (Table 2). Questions 1-10 of the ADI asked the students

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Table 2 goes about here.

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to respond by asking if the statements were "like me a lot" (2 points), "like me some" (1 point), and "not like me at all" (0 points) with a 2, 1 or 0 question value (Table 3). Questions 11-24 asked about the students drinking experience and if the statement was true in the past 12 months "4 or more times" (3 points), "2-3 times" (2 points), "only once" (1 point), or "never" (0 points) with a 3, 2, 1 or 0 question value (Table 4). Any value higher than one indicates some alcohol use. Values 15 and below indicate possible or potential alcohol problems while values greater than 15 indicate alcohol abuse problems. Table 2 shows the question values for the two grade levels by gender and by location. Table 2 also indicates 65% of NNM 7th grades students use some alcohol and 14% show a definite need for counseling, 90% of NNM 12th graders use some alcohol while 24% need alcohol counseling, 37% of USM 7th grade students use some alcohol and 13% need alcohol counseling, and 88% of USM 12th graders use some alcohol while 36% need alcohol counseling. This is higher than national trends which report that more than 50% of 7th through 12th graders currently drink alcohol.[13]

Table 3 and Table 4 go about here.

Other results related to differences between 7th and 12th graders, male and female students, and NNM and USM students were arrived at by using calculated Chi-Square values. Tables 3 and 4 show that the only significant Chi-Square values found were for questions 1, 2, 3, 7, 13, 17, 19, 21, 23 and 24. When asked how often they think about drinking, 7th graders thought significantly less than 12th graders ($x^2 = 13.56$, df = 2) as did the students from NNM to USM ($x^2 = 10.91$, df = 2). Drinking because of anger or frustration was different between 7th and 12th graders ($x^2 = 19.38$, df = 2). Males drank more to calm down than females ($x^2 = 12.23$, df = 2) as did 12th compared to 7th graders ($x^2 = 7.52$, df = 2). Drinking as a result of feeling sad was significantly more applicable to 12th graders than to 7th graders ($x^2 = 12.23$, df = 2).

The category about problems while drinking revealed the following results. Seventh graders do not identify with the question as do 12th graders when asked how often they had consumed 6 or more drinks in one day ($x^2 = 22.48$, df = 3) nor when asked how many times in the past year did they drink 2 or more drinks in a row ($x^2 = 18.60$, df = 3). When asked how many times in the past year students were involved in a fight over drinking, males were more involved than females ($x^2 = 8.61$, df = 3) as were 12th more involved than 7th graders ($x^2 = 7.96$, df = 3). When asked how often did they get in trouble with the law when drinking, females indicated less trouble than males ($x^2 = 7.99$, df = 3) and 7th

graders indicated less trouble than 12th graders ($x^2 = 8.27$, df = 3). Seventh graders showed significantly less participation than 12th graders when asked how many times in the past year did they get drunk ($x^2 = 24.46$, df = 3). The USM students reported more fighting with their parents over drinking in the past year than NNM students ($x^2 = 7.90$, df = 3), 7th graders reported less fighting than 12th graders ($x^2 = 8.26$, df = 3) and females reported less fighting than male students ($x^2 = 7.90$, df = 3).

Chi-Square analyses were also performed on data collected from the PPCA. Significant Chi-Square values were found on the following six of thirteen personal problem areas: social/friends, family/home, school, money, dating/sex, and health habits. Seventh graders had significantly fewer problems than 12th graders in the personal problem areas social/friends ($x^2 = 32.41$, df = 19), family/home ($x^2 = 47.22$, df = 23), school ($x^2 = 53.23$, df = 21) and money ($x^2 = 24.66$, df = 11). Female students had fewer problems than male students in personal problem areas dating/sex ($x^2 = 55.85$, df = 17) and health habits ($x^2 = 32.44$, df = 19). USM students had more problems than NNM students in the personal problem area school ($x^2 = 56.87$, df = 21).

Discussion and Recommendations

The findings from this study show that only one of the three proposed null hypotheses can be safely rejected. The results

indicate that clear differences exist between 7th and 12th grade students in the levels of alcohol consumption and the problems that arise from that use. Out of the 16 areas that Chi-Square analyses were performed, only 3 were significant when comparing NNM students to USM students and 6 were significant when comparing female to male students. However, it should be noted that observed significant differences in questions 1 and 24 and personal problem area school when comparing NNM to USM should be considered further. Question 1 asked if they thought about alcohol drinking and the findings indicated that USM students significantly thought more about drinking than do NNM students. It could be assumed that thinking could eventually become practice. The other question where significant difference was found between USM and NNM students was question 24 which asked if they fought with parents over drinking. It could be concluded that if anyone knew about the students and their behavior, it would be their parents. If parents are concerned about their children's drinking, it could be a valid concern. The only problem area that observed significant difference occurred is the area of school. USM students seemed to have more problems with school than NNM students. Since school is the hub of their social and personal lives, it could be a significant overall problem, especially when there appears to be a relationship between lack of school success and alcohol consumption.[14] When comparing the 4 questions (3, 19, 21 and 24) and the two problem areas dating/sex and health habits between male and female students, where observed significant differences occurred, interesting and

important revelations were noted. The difference in male behavior versus female behavior appeared to indicate that males used alcohol to relax and calm down in addition to being influenced by alcohol toward violent and aggressive behaviors. In combination with these admitted behaviors, males also reported significant differences in regards to problems with personal health and dating and sex. This is a combination that could lead to dangerous consequences.

The results from the point value attached to answers from the ADI instrument revealed that a high percentage of seniors in both high schools (NNM = 90%, USM = 88%) use alcohol. In addition, the 37% alcohol use reported is high for USM 7th graders and 65% alcohol use is definitely high for NNM 7th graders (Table 2).

Although significant differences were found between 7th and 12th graders representing personal problems and alcohol use, intervention and educational strategies should be directed at all grades in junior and senior high schools. In view of the reported high alcohol contact in 7th grade, it is recommended that alcohol education and prevention strategies be incorporated at least by 4th grade. The aggressive and rebellious behaviors that shows up in males as a result of alcohol consumption may also be cultural as well. It is recommended that alcohol education consider local and cultural traditions and include the local community as well as the school population. The study is limited to Hispanic junior and senior high school students from rural areas. Further studies are needed and should include students from urban areas as well as more study subjects. The observed differences on family conflicts could

serve as a valuable impetus for further investigation surrounding adolescent alcohol misuse in various subgroups of Hispanic origin. A cross-cultural study could also prove beneficial.

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TABLE 1

DEMOGRAPHICAL INFORMATION

		7TH	12TH	TOTALS
NNM	Males	19	10	29
	Females	24	11	35
	Totals	43	21	64
USM	Males	25	19	44
	Females	21	23	44
	Totals	46	42	88

TABLE 2

STUDENT ALCOHOL USE TOTALS AND PERCENTAGES

		7TH GRADERS			12TH GRADERS		
		<2	2-15	>15	<2	2-15	>15
NNM	Males	7	9	3	1	4	3
	Females	8	13	3	1	10	2
	Totals	15	22	6	2	14	5
	Percent	35%	51%	14%	10%	66%	24%
			65%			90%	
USM	Males	11	5	6	1	6	11
	Females	18	2	0	4	16	4
	Totals	29	11	6	5	22	15
	Percent	63%	24%	13%	12%	52%	36%
			37%			88%	

TABLE 3

PERCENTAGES OF RESPONSES BY LOCATION AND GRADE LEVEL

	Like me a lot				Like me some				Not like me at all			
	USM 7th	USM 12th	NNM 7th	NNM 12th	USM 7th	USM 12th	NNM 7th	NNM 12th	USM 7th	USM 12th	NNM 7th	NNM 12th
1. I often think about drinking.*	4	17	0	0	15	45	47	57	81	38	53	43
2. I sometimes drink because I feel angry or frustrated.*	2	2	0	10	4	33	7	19	94	65	93	71
3. I drink to relax or calm down.*	0	12	5	0	8	24	9	19	92	64	86	81
4. I feel more confident and sure of myself when drinking.	0	4	2	0	6	16	2	5	94	80	96	95
5. It takes more alcohol to make me drunk than it used to.	0	6	5	10	8	26	10	14	92	68	85	76
6. Drinking helps when I feel lonely.	0	6	0	5	4	12	7	10	96	82	93	85
7. I sometimes drink because I feel so sad.*	0	2	0	5	4	29	7	5	96	69	93	90
8. Drinking helps when I feel bored.	2	12	2	5	6	26	11	19	92	62	87	86
9. I sometimes wonder what I said when I had a lot to drink.	4	9	7	19	8	26	14	38	88	65	79	43
10. I am sometimes embarassed by things I did while drinking.	4	12	7	10	6	29	7	38	90	59	86	52

*p = < .05

TABLE 4

PERCENTAGES OF RESPONSES BY LOCATION AND GRADE LEVEL

In the past 12 months..	4 or more				2 - 3 times				Only once				Never			
	USM 7th	USM 12th	NNM 7th	NNM 12th	USM 7th	USM 12th	NNM 7th	NNM 12th	USM 7th	USM 12th	NNM 7th	NNM 12th	USM 7th	USM 12th	NNM 7th	NNM 12th
11. How many times were you ripped off or taken advantage of while drinking?	0	4	2	0	6	0	7	0	2	12	7	5	92	86	84	95
12. How often did friends or family members hassle you about your drinking or the way you acted when drinking?	0	4	0	0	2	8	2	5	11	17	7	24	87	71	91	71
13. How often in the past year did you have 6 drinks or more in one day? (One drink = 1 beer, 1 glass of wine, or 1 shot of liquor.)*	8	36	10	24	4	19	14	24	11	14	16	19	77	31	60	33
14. How many times did you argue with a good friend, girlfriend, or boyfriend about your drinking?	0	4	0	0	4	8	10	0	8	8	10	14	88	80	80	86
15. How many times did you do something while drinking that could get you into trouble, like shoplifting or damaging property?	0	6	0	0	4	8	7	0	2	8	10	5	94	78	83	95
16. How often were you late to school or work because you had been drinking the night before?	2	6	0	0	0	4	5	10	4	4	2	5	94	86	93	85
17. In the past year, how many times did you drink two or more days in a row?*	0	21	2	5	4	19	7	19	13	4	14	14	83	56	87	62
18. How often did you get hurt or have an accident when you had been drinking?	0	2	0	0	0	0	0	5	4	6	2	5	96	92	98	90
19. How often in the past year did you get into a fight over drinking?*	0	4	0	0	0	8	5	0	4	6	2	5	96	82	93	95
20. How many times have you had privileges taken away because of drinking?	0	0	5	0	8	4	2	5	6	2	10	5	88	94	83	90
21. How often did you get into trouble with the law when you had been drinking?*	0	2	0	5	2	4	0	0	6	2	2	5	92	92	98	90
22. How many days did you drink before school?	0	4	0	0	4	21	2	5	11	12	14	24	85	63	84	71
23. How many times in the past year did you get drunk?*	2	36	7	29	4	12	14	19	13	17	26	19	81	35	53	33
24. How often in the past year did you fight with your parents about your drinking?*	0	2	2	5	2	12	0	0	4	6	2	0	94	80	96	95

* p = < .05